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INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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S E C R E T

COUNTRY Poland

REPORT

25X1

SUBJECT Factories of the Electronics

DATE DISTR.

15 JAN 1958

Industry in Poland / Manpower, location,

NO. PAGES

1

Production, and some layout sketches on
Plants producing Electron tubes, Electronic
Components, Transmitting and receiving
Sets, television Sets, Radios, Special military
Communications Equipment, Telephones, headsets, terminal

REQUIREMENT
NO.

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DATE OF
INFO.

REFERENCES

25X1

PLACE &
DATE ACQ.

Switchboards, Electric lamps, fluorescent
lamp and tube components and manufacturing
equipment.

SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE

a report presenting miscellaneous information

25X1

on factories of the electronics industry in Poland. In addition to sketches
showing the location and layout of various "L" and "T" factories, there is an
organization chart showing the subordination of the factories within the
ministry.

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ENCLOSURE ATTACHED
PLEASE ROUTE

S E C R E T

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STATE	X	ARMY	X	NAVY	X	AIR	X	FBI		AEC									
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(Note: Washington distribution indicated by "X"; Field distribution by "#".)

INFORMATION REPORT INFORMATION REPORT

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23 DEC 1957

B) POLISH ECONOMIC INFORMATION1) INDUSTRIES

[redacted] General information on the production development of the
"Electrotechnical Industries" in Poland.

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[redacted]

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From 1947-48 to 1951 a great impulse was given to the establishment of factories for the manufacture of radio sets, telephones, and so forth, but at the time no importance was attached to the fact that the parts needed to build such instruments had to be purchased abroad. The reason for this was that in Poland there were no qualified technicians to handle the manufacture of parts. It was necessary to create a qualified class capable of remedying the deficiency.

The government, pressed by the demands of the "Soviet masters" in the production sector, thus had to meet considerable expenses to acquire such material abroad.

On the basis of this experience, it was decided to establish a special branch of the Ministry of Heavy Industry to deal exclusively with the manufacture of parts and different materials needed for the production of various types of telecommunications equipment.

In 1951, the "L" establishments began to appear; they handled the manufacture of tubes and spare parts for radios.

[redacted] "T" and "L" factories.

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- From the illustration attached to the paragraph on "Ministries" (Political Information) we can deduce the Directorate to which they are responsible within the Ministry of Heavy Industry, under which they are placed.

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[redacted]

The "L" factories manufacture [redacted] spare parts and tubes.

The "T" factories manufacture mechanical parts and assemble various types of radio equipment.

[redacted] Higher Institute of Telecommunication Research - Warsaw

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Location

- In the Grochow section, eastern part of the city.
- Km 1 to the east of the road to Bialystok (51-52/41-G).
- Near the factory "T-1".

Purpose

- Research in the field of electrotechnics.
- Study and implementation of projects sent from the USSR or other countries.

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[redacted]

[redacted] Atomic study centers in Poland

General Data

[redacted] the establishment of two centers for atomic studies located as follows:

25X1

- 1) in the Zeran section.
- 2) Krakow (51-52/35-M)

Activity

- They are under direct Soviet control, and receive instructions and projects for development directly from the USSR.

The activity in these centers seemed to be suddenly interrupted after Gomulka's "Plenum."

In fact, the Soviet government has stopped the shipment of machinery needed by these centers.

[redacted] the consignment of a very limited quantity of cobalt from the USSR prior to the interruption.

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There is not even the equipment used in the production of "isotopes" in either center.

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[] Raw materials for the electrical industry are imported almost in toto.

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a) Aluminum Foil

- 5-7 microns in thickness, imported from: [] the USSR

25X1

- Now [] an aluminum rolling mill is being established at the new "Huta Warszawa" smelter in Warsaw.

25X1

b) Mica, from: USSR []

25X1

c) Quartz, []

Note: Synthetic quartz is not yet being produced in Poland.

d) Raw materials for special ceramics

from: Czechoslovakia, China, []

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-(Now also produced in Poland)

e) Chloric and phenylchloric waxes, []f) Special paper for condensers

- 6-7 microns in thickness from: []

Czechoslovakia

g) Leather for trimmings

- .03 mm in thickness, []

h) Oil, vaseline, and synthetic wax preparations

- National production being improved.

[] "T" Factories

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These factories engage in the manufacture of mechanical parts and in the assembly of radio, radar, and television sets, and telephones, under the jurisdiction of the "Centralny Zarzad Telekomunikacyi" (Central Telecommunications Administration).

[] Radio Transmitter and Receiver Factory in Warsaw

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This factory is called "Kasprzak T-3." It is located between Ulica Kasprzaka and Ulica Karolkowa in the Vola quarter, in the eastern part of Warsaw (see attached sketch).

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[redacted]

This is a complex of new buildings, with a surface area of about 50,000 square meters, which began operations in July 1951. The directing manager is a certain Kazimierzak. The factory employs about 20,000 workers, including 800 specialists; about 200 engineers and technicians constitute the directing personnel. 2000?

This factory assembles radio sets and manufactures mechanical parts for the same. It also sets up radio receiving and transmitting stations for the Armed Forces (production in this regard was begun in 1952-1953).

Civilian radios turned out at the factory are 3-tube, 5-tube, and 7-tube sets of the "AGA" model [redacted] and 5-tube and 7-tube radios of the "POLONAISE" model. There is also a Polish radio modelled after the "AGA" but with a number of modification.

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Types of radio receivers and transmitters for military use assembled at the factory include first of all the radio receiving stations already in use with the [redacted] Armed Forces, copied after original Russian sets, [redacted] These are 50-watt crystal sets carried on the back.

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Further, there are the 50-watt medium wave "K" receiver-transmitters, and finally the 500-watt mobile receiver-transmitters (markings not observed) with batteries and generators.

Note: At present [redacted] this [military] manufacture has been suspended in order to prepare the equipment for the manufacture of the new type "D. 116" receiver-transmitter under Russian license. [redacted]

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[redacted]

The factory has been producing about 100,000 civilian radios and about 100 receiver-transmitters for the Armed Forces [annually].

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The production of the factory goes chiefly to domestic consumption. Efforts have also been made to export the radios [redacted] [redacted] but with only limited results.

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[redacted]

As regards the raw materials, the metals, the wood, and the bakelite are produced domestically; the tubes and electrical replacement parts are produced in national factory "L."

Electric power comes from the transformer shed, housing three 1,000-kilowatt transformers, with a total capacity of 3 megawatts.

Factory connections and means of transportation are supplied by two or three automobiles for the supervisory personnel and five 5-ton trucks for the transport of material. There is no direct railway connection; the nearest railway line is about one kilometer away.

[redacted] Radio Factory in Dzierzoniow (51-52, 27-k)

25X1

The "T-6" factory is located as designated on the margin [between the parentheses above] [redacted]

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This is a factory (not new) producing civilian radios. Since 1955 one department of the factory has been engaged in the construction of radios for tanks.

The factory employs about 2,000 workers. It turns out radio receiver-transmitters of an original [redacted] type, reproduced by the Russians, a 12-crystal set with markings "RT-10," for tanks.

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Civilian radios produced are the portable "Pionier," the "Mazur," and the "Slazk." These are 5-tube radios run by direct current.

Speaking in terms of annual production, the factory turned out 300,000 radios of the three above-mentioned civilian types, for domestic use and for export; a limited number of these radios were exported [redacted] Production of receiver-transmitters for tanks, domestic use, amounted to 500 sets.

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[redacted] Radar Factory in Warsaw

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The "T-1" factory is located (see attached sketch) in the Grochow District in the eastern part of Warsaw, about 3 kilometers northeast of the Vistula River, about one kilometer to the east of the highway to Bialystok (51-52, 41-G).

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The factory is a new one and is situated opposite the Telecommunications Research Institute (P.I.T). It employs about 2,000 workers. It engages in the assembly line production of "SON" 9 radar sets, under Soviet license, for artillery firing, and of the "NYSSA" Radar, an original Polish type used along the border for the detection of planes.

The "NYSSA" radar has a range of 150 kilometers. It is mounted on a 10-ton diesel-powered trailer truck and it has a descending antenna.

The "SON 9" is used for artillery firing, where there is no fire control center necessary for the automatic firing of artillery. Such a control center is not yet produced in Poland but is imported in its entirety from the USSR.

The "SON 4," a radar under Soviet license (smaller than the previously described "SON 9") is in the planning stage at this factory and the plans are at present under study at the Telecommunications Research Institute; it also comes in two parts (radar and trailer truck) for power.

The factory produces about 50 radar sets of the type "SON 9" annually.

Telephone Factory at Radom (51-52, 37-J)

25X1

Factory "T.9" is located in the northeastern part of Radom, about 1,500 meters from the center (see attached sketch). It is the old "Ericson" factory, modernized after World War II. The managing director is a certain Pinkiert,

25X1

The factory employs about 600 workers. It manufactures telephones for civilian and military use, helmets with earphones and mouthpieces for planes and tanks, and "igniters for mines" of undertermined characteristics.

The military telephones turned out at the factory bear the markings "TAI." They are produced under Soviet license and weigh from 3 to 4 kilograms.

Note: the factory began the production of igniters for mines under Soviet license

25X1

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SECRETTelevision Factory in Warsaw

25X1

Factory "T. 15" is located in the Praha District of the city. It is a new factory which began production in January 1956. It occupies an area of about 25,000 square meters and employs about 1,500 workers.

The factory produces the "Avangard" television set, of undetermined characteristics, under Soviet license, and the "Visla," an original Polish set, likewise of undetermined characteristics.

Note: [redacted] only the last-mentioned type was produced in 1957 and [redacted], according to operational plans, production was scheduled at 50,000 units in 1957 and 120,000 units in 1960. A new type, to be called the "Polonez," of undetermined characteristics, is at present in the planning stage.

Telephone Exchange Factory in Warsaw

25X1

Factory "T.2" is located in the Grochow District of Warsaw, in the vicinity of Factory "T.1" previously mentioned. It is an old telephone exchange factory with modernized equipment and buildings in part expanded.

The factory produces telephone exchanges with 500; 1,000; and 10,000 connections and employs about 1,200 workers.

Telephone Factory in Lodz (51-52, 33-J)

25X1

Factory "T.4" is located in Lodz [redacted] It produces civilian telephones, radio material, radio amplifiers, and electrical phonographs.

Note: [redacted] the establishment received directions to begin the manufacture of short-wave radio receiver-transmitters for the Armed Forces. Production has not yet been begun but is reportedly scheduled at 1,000 to 2,000 units annually.

25X1

This factory employs about 1,200 workers. Annual production amounts to about 50,000 telephones, 10,000 radio amplifiers (from 8 to 500 watts), and about 10,000 electrical phonographs.

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25X1

SECRET

25X1

Location

On the west edge of the locality shown on the margin (not better pinpointed

25X1

Generalities

It is a factory constructed about 1946-47 for the textile industry and then assigned to the "T" factories.

Manufactures

Radio amplifiers with plates, fed by selenium cells.

Electric voltage transformers.

Electric current rectifiers.

Manpower

Approx. 400 workers.

Annual production

Approx. 5,000 amplifiers.

Approx. 20,000 transformers and rectifiers all told.

Telephone switchboard factory at.....BYDGOSZCZ
51-52
30-G

25X1

Name

"T-8"

Location

In town.

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25X1

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25X1

General Information

This is an old factory which has been very slightly changed in equipment.

Manufactures

Civil telephone switchboards to handle 100 calls

Military telephone switchboards to handle 50 calls

Teletypewriters.

Manpower

Approx. 500 workers.

Annual production

About 2,000 civil telephone switchboards

About 200 military " "

Number of teletypes unknown.

High and Medium Frequency Generators Factory....WARSAW

25X1

Name

"T-12"

Location

In the ZERAN district, about one kilometer from the F.O.S. Auto Factory.

General Information

This is a factory constructed in 1948.

Manufactures

High and Medium Frequency Generators of 20 to 50 KW.

Medium-frequency receiving and transmitting radio sets for aircraft;

100 to 200 Watts.

Frequency generators for heating, from one to 10 KW.

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25X1

Manpower

About 500 workers.

Annual production

One hundred frequency generators.

200 radio sets for aircraft.

Machine tools and coils.factory.....WARSAW

25X1

Name

"T-13"

Location

In the KASPRZAK district, about 500 meters west of the "T-3" Factory
mentioned previously.

General Information

This is not a new factory.

Manufactures

Machine tools and coils needed by "T" factories (not further identified).

Manpower

About 200 workers.

"L" Factories.....

25X1

General Information

Make electric lamps, tubes (Lampowa) and spare parts (Podzespoty) radios
and telephones.

Higher Organization

Subordinate to CENTRALNY ZARZAD LAMPOWY (Directorate of Lamps).

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Electric lamp factory.....WARSAW 25X1

Name

"L-1"

Location

25X1

In the VOLA district, east of the city

Between KASPRZAK Street and KAROLKOVA Street, opposite the "T-3" Factory
previously mentioned.

General Information

This is the former PHILIPS Factory, which was expanded and reconstructed
after the last world war.

ManagerEngineer named S U R K O W S K I

25X1

Manpower

About 2,500 workers.

Manufactures

Lamps and tubes for radios.

Special tubes for radar.

Klystron for radar.

Magnetron for radar.

Low-voltage fluorescent tubes.

Transmission tubes of 100 to 200 Watts, on a Soviet license.

Note:

Microtube manufacturing planned, using equipment which may be
purchased

25X1

Regarding manufacture of "Klystron", they are being made by hand rather
than by assembly line method so far.

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25X1

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25X1

The Magneton is being slowly produced: 100 to 200 units a year, of the "M-2" and "M-3" type; characteristics unknown.

Annual production of lamps

5,000,000

Annual Production of Radio Tubes

3,000,000

Annual Production of Tubes for Military Radio Sets

100,000

Equipment

Ten machine lines, called "AUTOMAT", for mass production of lamps and tubes. The machinery ~~was~~ was made by the TUNGSRAM Hungarian factory and the PHILIPS Factory.

"L-8" Factory.....WARSAW

25X1

Location

(See sketch shown on double page).

In VOLA district, east of the city.

On ULICA (street) KASPRZAKA.

General Information

This is a new factory, which was set up by separating the Tube Filament Department from the "L-1" Factory.

It began operating in 1956.

Manager

A man named G R O D Z I C K I, a former worker.

Manpower

About 400 workers.

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Manufactures

Wolframite metal wires for radio tubes and electric bulbs.

Molybdenum metal wires for radio tubes and electric bulbs.

Both ^{of the above} up to 5-micron thickness.

Nickel wire for electrical purposes.

Small metal ^{pipes} ~~XXXX~~ for inside of radio tubes.

Destination of products

To the "L-1" Factory in Warsaw.



"L-6" Factory in.....WARSAW

25X1

Location

See sketch shown on page 11 of original)

On ULICA KAROLKOWA, in the VOLA district, on the north side of "T-3"

Factory, previously mentioned.

Manufactures

Machines used in "L-1" Factory in WARSAW.

Checking and metering sets for lamps and tubes.

Manpower

About 400 workers.

Note:

This factory makes only machinery needed by the "L-1" Factory,
or repairs machinery in use in that factory.



Porcelain Factory in.....WARSAW

25X1

Name

"L-5".

SECRET

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Location

[Redacted]

25X1

In the SLUZEWIEC district, about 8 kilometers from the center of the city
About 2 kilometers east of the OKECJE Airport
Near the/race track.

General Information

This is a new factory which was intended for the textile industry.
Began operating in 1956.

Manufactures

Special porcelain for manufacture of following radio set parts:

- Resistor supports.
- Tube supports.
- Covering for variometers.
- Insides of resistor windings.
- Insulation for electrical condensers.

Manager

A man named P O L K O W S K I, a former "U.B." officer who is not
qualified for this job.

Manpower

About 800 workers.

Destination of products

Sent to the national "T" factories.

[Redacted]

Condenser Factory in 51-52
CRACOW
35-1

25X1

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Name

"L-7".

Location

25X1

Southeast of the city, at a distance of about 4 kilometers.

About 500 meters south of the WISLA River.

Manufactures

Electrical conduits.

Electrical resistors.

Potentiometers.

Feed plates.

Condensers (made with paper of 6-8-10-12 micron), for radios, radar,

video, small motors, fluorescent lamps, transformer booths.

Condensers (made with mica sheets).

Manpower

About 2,000 workers.

Production data

Unknown.

Loudspeaker and microphone factory in 53-54-55
WRZESNIA
53-j

25X1

Name

"L-10".

Location

In the locality shown on the margin

25X1

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General Information

An old factory, modernized and expanded.

Manager

A [redacted] man named S L E D R I E J O W S K I, [redacted]
[redacted]

25X1

Manufactures

Loudspeakers

Throat phones

Microphones

Filters (antiparasite ?)

Precision motors for remote control (radar), unknown to source.

Note;

The remote control motors were first manufactured early in 1957.

Manpower

About 1,000 workers.

Annual production

About 500,000 loudspeakers, throat phones and microphones all told (mass produced).

About 100 motors for remote control (radar).

[redacted]. Electrolytic condensers factory in

51-52
.....BYDGOSZCZ
30-G

25X1

Designation

"L-13"

Location

In town.

Manufactures

~~Also~~ Electrolytic condensers.

Electrical equipment for mine machinery.

SECRET

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SECRET

25X1

Manpower

About 1,000 workers.

Production

Unknown.

Radar and television lamps factory in.....WARSAW

25X1

Designation

"L-16"

Location

About 6 kilometers south of the "L-5" factory, which is situated in the SLUZEWIEC district of WARSAW.

Manager

business
A certain G A L T A, former/manager of ~~the~~ another factory.

Gen. Information

This is a new factory, which is not in full operation but will be so by the end of the year.

Manufactures

Television lamps ~~called~~ for CINESKOPE sets.

Radar lamps for OSTILOSKOPE sets.

Mass production is foreseen for both types.

Manpower

150 workers at present.

When fully operative it will employ 2,000 bluecollar workers.

Illumination lamps factory in51-52
PABIANICE
33-J

25X1

Designation

"L-2"

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Location

In the center of the locality shown on the margin.

Gen. Information

This is an old existing factory from world war II, partly modernized in its equipment.

Manufactures

Electric lighting lamps

Lamps for automobiles and trains.

Manpower

About 1,000 workers.

Annual Production

15,000,000 lamps.

	lamp factory.....	51-52 KATOWICE 48-s	25X1
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Designation

"L-3"

Note:

This factory makes the very same products as "L-2", previously mentioned.

	Glass for lamp and tube factory in.....	51-52 OZAROW 38-k	25X1
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Designation

"L-4"

General Information

This is an old glass factory, now retoddled for present manufactures.

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Manufactures

Glass for tubes and lamps

Manpower

About 400 workers

Production

On order from "L" factories (small lamps and tubes).

[] . [] Metal parts for lamps and tubes used in electrolytic
condensers in

25X1

.....51-52
.....BIELSKO
33-m

Designation

"L-15"

Gen. Information

Old factory now in development; used to make aluminum tubes for toothpaste.

Manufactures

Metal parts for lamps

Aluminum tubes for electrolytic condensers

Aluminum tubes for toothpaste.

Manpower

About 800 workers.

[] "L-9" Factory in.....

WARSAW

25X1

Location

East edge of town, in the VOLA district.

Gen. Information

This is a detached department for factory "T-3".

Manager: W I E R Z C H O W S K I.Manpower: About 300 workers.

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